

WHAT IS CLAIMED IS:

1. A stator for use in a two rotor single stator type electric motor in which inner and outer rotors are rotated independently within and around the stator upon application of current to the stator, the stator comprising:
  - 5 a stator core including a plurality of stator teeth that are circumferentially arranged around a common axis, each stator tooth including a plurality of flat magnetic steel plates that are aligned along the common axis while intimately and closely contacting to one another; and
  - 10 at least one connecting ring plate coaxially installed in the stator core in such a manner that the ring plate is intimately put between adjacent two of the flat magnetic steel plates of each stator tooth, the ring plate being of an endless annular member.
- 15 2. A stator as claimed in Claim 1, in which the connecting ring plate comprises:
  - an annular inner base portion; and
  - 20 a plurality of finger portions that radially extend outward from the annular inner base portion.
3. A stator as claimed in Claim 1, in which the connecting ring plate comprises:
  - an annular outer base portion; and
  - 25 a plurality of finger portions that radially extend inward from the annular outer base portion.
4. A stator as claimed in Claim 1, in which the connecting ring plate is constructed of a magnetic steel plate.
- 30 5. A stator as claimed in Claim 1, in which the connecting ring plate is constructed of a non-magnetic metal.
6. A stator as claimed in Claim 1, in which each stator tooth has a rectangular cross section.

7. A stator as claimed in Claim 6, in which the rectangular cross section is tapered at its leading end.
- 5 8. A stator as claimed in Claim 1, in which each stator tooth is equipped at a radially leading end thereof with an auxiliary stator member that is constructed of a magnetic steel.
- 10 9. A stator as claimed in Claim 8, in which the auxiliary stator member of one stator tooth and the auxiliary stator member of an adjacent stator tooth are separated by a non-magnetic metal member that is arranged between the two stator teeth.
- 15 10. A stator for use in a two rotor single stator type electric motor in which inner and outer rotors are rotated independently within and around the stator upon application of a compound electric current to the stator, the stator comprising:
  - a stator core including a plurality of stator teeth that are circumferentially arranged around a common axis, each stator tooth including a plurality of flat magnetic steel plates that are aligned along the common axis while intimately and closely contacting to one another;
  - 20 at least one connecting ring plate coaxially installed in the stator core in such a manner that the ring plate is intimately put between adjacent two of the flat magnetic steel plates of each stator tooth, the ring plate being of an endless annular member;
  - a plurality of coils put around the stator teeth respectively;
  - 25 two supporting brackets between which the stator teeth of the stator core are sandwiched;
  - 30 fastening members that fasten the two supporting brackets to tightly and intimately connect the magnetic steel plates of each stator tooth to one another; and
  - a molded plastic that embeds therein the stator core, the connecting ring plate, the coils, the two supporting brackets and

the fastening members thereby to constitute a cylindrical structure.